

# National Pollutant Release Inventory (NPRI) and



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## Report Preview

### Report Details

Report Year	2016
Report Type:	NPRI,ON MOE TRA,ON MOE
Report Status:	Submitted
Modified Date/Time:	31/05/2017 12:23 PM

### Company and Facility Details

Company Name:	Krug Furniture Inc.
Business Number:	878328426
Mailing Address:	Delivery Mode: GeneralDelivery Address Line 1: 421 Manitou Drive City, Province/Territory, Postal Code: Kitchener Ontario N2C1L5 Country: Canada
Facility Name:	MANITOU CASEGOODS
NAICS Code:	337213
NPRI ID:	5881
ON Reg 127/01 ID:	5777
Physical Address:	Address Line 1: 421 Manitou Drive City, Province/Territory, Postal Code: Kitchener Ontario N2C1L5 Country: Canada Latitude: 43.40360 Longitude: -80.44950 UTM Zone: 17 UTM Easting: 544576 UTM Northing: 4805783

### Contacts Details

Contact Type	Technical Contact, Certifying Official
Name:	Leslie Creek
Position:	Quality Assurance/Health & Safety Supervisor
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Contact Type	Contractor Contact, Person who prepared the report, Person who coordinated the preparation of the Toxics Reduction Plan
Name:	Alicia Wind
Position:	Resource Conservation Specialist
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Independent contractor/consultant company name:	Enviro-Stewards Inc.
Contact Type	Highest Ranking Employee
Name:	Rob Hawes
Position:	Vice President
Telephone:	5197485100
Fax:	5197485177
Email:	rhawes@krug.ca
Mailing Address:	Delivery Mode: GeneralDelivery Address Line 1: 421 Manitou Drive City, Province/Territory, Postal Code: Kitchener Ontario N2C1L5 Country: Canada

## General Information

Number of employees:	238
Activities for Which the 20,000-Hour Employee Threshold Does Not Apply:	None of the above
Activities Relevant to Reporting Dioxins, Furans and Hexachlorobenzene:	None of the above
Activities Relevant to Reporting of Polycyclic Aromatic Hydrocarbons (PAHs):	Wood preservation using creosote: No
Is this the first time the facility is reporting to the NPRI (under current or past ownership):	No
Is the facility controlled by another Canadian company or companies:	No
Did the facility report under other environmental regulations or permits:	No
Is the facility required to report one or more NPRI Part 4 substances (Criteria Air Contaminants):	Yes
Was the facility shut down for more than one week during the year:	No
Operating Schedule - Days of the Week:	Mon, Tue, Wed, Thu, Fri
Usual Number of Operating Hours per day:	16
Usual Daily Start Time (24h) (hh:mm):	07:00

## Substance List

CAS RN	Substance Name	Releases	Releases (Speciated VOCs)	Disposals	Recycling	Unit
67-64-1	Acetone	3.6840	N/A	N/A	N/A	tonnes
67-56-1	Methanol	1.6030	N/A	N/A	0.6170	tonnes
108-88-3	Toluene	8.2500	N/A	N/A	3.1520	tonnes
NA - M16	Volatile Organic Compounds (VOCs)	52.9990	39.6040	N/A	N/A	tonnes

## Applicable Programs

CAS RN	Substance Name	NPRI	ON MOE TRA	ON MOE Reg 127/01	First report for this substance to the ON MOE TRA
67-64-1	Acetone		Yes	Yes	No
67-56-1	Methanol	Yes	Yes		No
108-88-3	Toluene	Yes	Yes		No
NA - M16	Volatile Organic Compounds (VOCs)	Yes	Yes		No

CAS RN	Substance Name	Circumstance(s) that apply	Describe the circumstances that lead to the criteria no longer being met	Describe the information and any quantifications relied upon for making the determination
64742-89-8	Solvent naphtha light aliphatic	The substance did not meet the criteria to provide information to NPRI	Variations in customer orders and materials used, as well as changes to material formulations.	Purchasing records and material concentrations.

### General Information about the Substance - Releases and Transfers of the Substance

CAS RN	Substance Name	Was the substance released on-site	The substance will be reported as the sum of releases to all media (total of 1 tonne or less)	1 tonne or more of a Part 5 Substance (Speciated VOC) was released to air
67-64-1	Acetone	Yes	No	No
67-56-1	Methanol	Yes	No	No
108-88-3	Toluene	Yes	No	No
NA - M16	Volatile Organic Compounds (VOCs)		No	Yes

### General Information about the Substance - Disposals and Off-site Transfers for Recycling

CAS RN	Substance Name	Was the substance disposed of (on-site or off-site), or transferred for treatment prior to final disposal	Is the facility required to report on disposals of tailings and waste rock for the selected reporting period	Was the substance transferred off-site for recycling
67-64-1	Acetone	No	No	Yes
67-56-1	Methanol	No	No	Yes
108-88-3	Toluene	No	No	Yes
NA - M16	Volatile Organic Compounds (VOCs)			

### General Information about the Substance - Nature of Activities

CAS RN	Substance Name	Manufacture the Substance	Process the Substance	Otherwise Use of the Substance
67-64-1	Acetone			As a manufacturing aid
67-56-1	Methanol			As a manufacturing aid
108-88-3	Toluene			As a manufacturing aid
NA - M16	Volatile Organic Compounds (VOCs)			

### Substances added to/removed from the report

CAS RN	Substance Name	Added/Removed	Comment
1330-20-7	Xylene (all isomers)	Removed	It did not exceed the reporting threshold this year.

### TRA Quantifications

CAS RN	Substance Name	Use, Creation, Contained in Product	Quantity	Use ranges for public reporting
67-64-1	Acetone	Use	5.012 tonnes	Yes
67-64-1	Acetone	Creation	0 tonnes	No
67-64-1	Acetone	Contained in Product		
67-56-1	Methanol	Use	2.280 tonnes	Yes
67-56-1	Methanol	Creation	0 tonnes	No
67-56-1	Methanol	Contained in Product	0 tonnes	No
108-88-3	Toluene	Use	11.402 tonnes	Yes
108-88-3	Toluene	Creation	0 tonnes	Yes
108-88-3	Toluene	Contained in Product	0 tonnes	Yes
NA - M16	Volatile Organic Compounds (VOCs)	Use	70.6 tonnes	Yes
NA - M16	Volatile Organic Compounds (VOCs)	Creation		No
NA - M16	Volatile Organic Compounds (VOCs)	Contained in Product		

### TRA Quantifications - VOC Breakdown List

CAS RN	Substance Name	Use, Creation, Contained in Product	Quantity
64-17-5	Ethanol	Use	12.079 tonnes
141-78-6	Ethyl acetate	Use	3.145 tonnes
67-63-0	Isopropyl alcohol	Use	2.522 tonnes
67-56-1	Methanol	Use	2.28 tonnes
78-93-3	Methyl ethyl ketone	Use	7.1 tonnes
123-86-4	n-Butyl acetate	Use	12.710 tonnes
108-65-6	Propylene glycol methyl ether acetate	Use	2.083 tonnes
108-88-3	Toluene	Use	11.402 tonnes

CAS RN	Substance Name	Use, Creation, Contained in Product	Quantity
108-88-3	Toluene	Creation	0 tonnes

### TRA Quantifications - Total Speciated VOCs

Use, Creation, Contained in Product	Quantity
Use	53.321 tonnes
Creation	0 tonnes

### TRA Quantifications - Others

CAS RN	Substance Name	Change in Method of Quantification	Reasons for Change	Description of how the change impact tracking and quantification of the substance	Description of how an incident(s) affected quantifications	Significant Process Change
67-64-1	Acetone					No
67-56-1	Methanol					No
108-88-3	Toluene					No
NA - M16	Volatile Organic Compounds (VOCs)					No

### On-site Releases - Releases to air

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
67-64-1	Acetone	Fugitive Releases	C - Mass Balance		3.684 tonnes
67-56-1	Methanol	Fugitive Releases	C - Mass Balance		1.603 tonnes
108-88-3	Toluene	Fugitive Releases	C - Mass Balance		8.250 tonnes
NA - M16	Volatile Organic Compounds (VOCs)	Fugitive Releases	C - Mass Balance		52.999 tonnes
NA - M16	Volatile Organic Compounds (VOCs)	Other Sources - Speciated VOCs	NA - Not Applicable		52.999 tonnes

### On-site Releases - Releases to air - Total

CAS RN	Substance Name	Total - Releases to Air
67-64-1	Acetone	3.684 tonnes
67-56-1	Methanol	1.603 tonnes
108-88-3	Toluene	8.250 tonnes
NA - M16	Volatile Organic Compounds (VOCs)	52.999 tonnes

### On-site Releases - Releases to air - VOC Breakdown List

Category	CAS RN	Substance Name	Quantity
Other Sources - Speciated VOCs	64-17-5	Ethanol	9.395 tonnes
Other Sources - Speciated VOCs	141-78-6	Ethyl acetate	2.278 tonnes
Other Sources - Speciated VOCs	67-63-0	Isopropyl alcohol	1.909 tonnes
Other Sources - Speciated VOCs	67-56-1	Methanol	1.663 tonnes
Other Sources - Speciated VOCs	78-93-3	Methyl ethyl ketone	4.516 tonnes
Other Sources - Speciated VOCs	123-86-4	n-Butyl acetate	9.99 tonnes
Other Sources - Speciated VOCs	108-65-6	Propylene glycol methyl ether acetate	1.603 tonnes
Other Sources - Speciated VOCs	108-88-3	Toluene	8.25 tonnes

### On-site Releases - Total

CAS RN	Substance Name	Total releases
67-56-1	Methanol	1.603 tonnes
108-88-3	Toluene	8.250 tonnes

### On-site Releases - Quarterly Breakdown of Annual Releases

CAS RN	Substance Name	Quarter 1	Quarter 2	Quarter 3	Quarter 4
67-56-1	Methanol	25	25	25	25
108-88-3	Toluene	25	25	25	25

### On-site Releases - Monthly Breakdown of Annual Releases

CAS RN	Substance Name	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
NA - M16	Volatile Organic Compounds (VOCs)	8.33	8.33	8.34	8.33	8.33	8.34	8.33	8.33	8.34	8.33	8.33	8.34

## On-site Releases - Reasons for Changes in Quantities Released from Previous Year

CAS RN	Substance Name	Reasons for Changes in Quantities from Previous Year	Comments
108-88-3	Toluene	No significant change (i.e. < 10%) or no change	
67-56-1	Methanol	Changes in production levels	
NA - M16	Volatile Organic Compounds (VOCs)	Changes in production levels	

## Disposals - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Disposed	Reasons for Changes in Quantities from Previous Year	Comments
108-88-3	Toluene		No significant change (i.e. < 10%) or no change	
67-56-1	Methanol		No significant change (i.e. < 10%) or no change	

## Recycling - Off-site Transfers for Recycling

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
67-56-1	Methanol	Recovery of Solvents	O - Engineering Estimates		0.617 tonnes
108-88-3	Toluene	Recovery of Solvents	C - Mass Balance		3.152 tonnes

## Recycling - Off-site Transfers for Recycling - Total

CAS RN	Substance Name	Total - Off-site Transfers for Recycling
67-56-1	Methanol	0.617 tonnes
108-88-3	Toluene	3.152 tonnes

## Recycling - Off-site Transfers for Recycling - By Facility

CAS RN	Substance Name	Category	Off-site Name	Off-site Address	Quantity
108-88-3	Toluene	Recovery of Solvents	Aimco Solrec	4215 Morobel Dr., Milton, ON, Canada	3.152 tonnes
108-88-3	Toluene	Recovery of Solvents	Aimco Solrec	4215 Morobel Dr., Milton, ON, Canada	
67-56-1	Methanol	Recovery of Solvents	Aimco Solrec	4215 Morobel Dr., Milton, ON, Canada	0.617 tonnes

## Recycling - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Recycled	Reasons for Changes in Quantities Recycled from Previous Year	Comments
108-88-3	Toluene	Unusable parts or discards	Changes in production levels	
67-56-1	Methanol	Unusable parts or discards	Changes in production levels	

## Comparison Report - Enters, Creation, Contained in Product

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
67-64-1	Acetone	No	Enters the facility (Use)	5.012 tonnes	6.689 tonnes	2015	-1.677	-25.07
67-64-1	Acetone	No	Creation	0 tonnes	0 tonnes	2015	0	
141-78-6	Ethyl acetate	Yes	Enters the facility (Use)	3.145 tonnes	3.119 tonnes	2015	0.026	0.83
64-17-5	Ethyl Alcohol	Yes	Enters the facility (Use)	12.079 tonnes	14.701 tonnes	2015	-2.622	-17.84
67-63-0	Isopropyl alcohol	Yes	Enters the facility (Use)	2.522 tonnes	3.583 tonnes	2015	-1.061	-29.61
67-56-1	Methanol	No	Enters the facility (Use)	2.280 tonnes	2.389 tonnes	2015	-0.109	-4.56
67-56-1	Methanol	No	Creation	0 tonnes	0 tonnes	2015	0	
67-56-1	Methanol	No	Contained in Product	0 tonnes	0 tonnes	2015	0	
67-56-1	Methanol	Yes	Enters the facility (Use)	2.28 tonnes	2.389 tonnes	2015	-0.109	-4.56
78-93-3	Methyl ethyl ketone	Yes	Enters the facility (Use)	7.1 tonnes	8.556 tonnes	2015	-1.456	-17.02
123-86-4	n-Butyl acetate	Yes	Enters the facility (Use)	12.710 tonnes	15.246 tonnes	2015	-2.536	-16.63
108-65-6	Propylene glycol methyl ether acetate	Yes	Enters the facility (Use)	2.083 tonnes	2.350 tonnes	2015	-0.267	-11.36
108-88-3	Toluene	No	Enters the facility (Use)	11.402 tonnes	12.619 tonnes	2015	-1.217	-9.64
108-88-3	Toluene	No	Creation	0 tonnes	0 tonnes	2015	0	
108-88-3	Toluene	No	Contained in Product	0 tonnes	0 tonnes	2015	0	
108-88-3	Toluene	Yes	Enters the facility (Use)	11.402 tonnes	12.619 tonnes	2015	-1.217	-9.64

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
108-88-3	Toluene	Yes	Creation	0 tonnes	0 tonnes	2015	0	

### Comparison Report - Enters, Creation, Contained in Product : Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
67-64-1	Acetone	Decrease in production levels	
67-56-1	Methanol	Decrease in production levels Other	Material usage varies based on customer orders, and materials have varying concentrations of toxic substances.
108-88-3	Toluene	Decrease in production levels	
NA - M16	Volatile Organic Compounds (VOCs)	Decrease in production levels Other	Material usage varies based on customer orders, and materials have varying concentrations of toxic substances.

### Comparison Report - On-site Releases

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
67-64-1	Acetone	No	Total Releases to Air	3.684 tonnes	4.670 tonnes	2015	-0.986	-21.11
67-64-1	Acetone	No	Total Releases to Water	0 tonnes	0 tonnes	2015	0	
67-64-1	Acetone	No	Total Releases to Land	0 tonnes	0 tonnes	2015	0	
67-64-1	Acetone	No	Total Releases to All Media	0 tonnes				
141-78-6	Ethyl acetate	Yes	Total Releases to Air	2.278 tonnes	2.174 tonnes	2015	0.104	4.78
64-17-5	Ethyl Alcohol	Yes	Total Releases to Air	9.395 tonnes	10.797 tonnes	2015	-1.402	-12.99
67-63-0	Isopropyl alcohol	Yes	Total Releases to Air	1.909 tonnes	2.580 tonnes	2015	-0.671	-26.01
67-56-1	Methanol	No	Total Releases to Air	1.603 tonnes	1.619 tonnes	2015	-0.016	-0.99
67-56-1	Methanol	No	Total Releases to Water	0 tonnes	0 tonnes	2015	0	
67-56-1	Methanol	No	Total Releases to Land	0 tonnes	0 tonnes	2015	0	
67-56-1	Methanol	No	Total Releases to All Media	0 tonnes				
67-56-1	Methanol	Yes	Total Releases to Air	1.663 tonnes	1.619 tonnes	2015	0.044	2.72
78-93-3	Methyl ethyl ketone	Yes	Total Releases to Air	4.516 tonnes	5.082 tonnes	2015	-0.566	-11.14
123-86-4	n-Butyl acetate	Yes	Total Releases to Air	9.99 tonnes	11.324 tonnes	2015	-1.334	-11.78
108-65-6	Propylene glycol methyl ether acetate	Yes	Total Releases to Air	1.603 tonnes	1.703 tonnes	2015	-0.100	-5.87
108-88-3	Toluene	No	Total Releases to Air	8.250 tonnes	8.518 tonnes	2015	-0.268	-3.15
108-88-3	Toluene	No	Total Releases to Water	0 tonnes	0 tonnes	2015	0	
108-88-3	Toluene	No	Total Releases to Land	0 tonnes	0 tonnes	2015	0	
108-88-3	Toluene	No	Total Releases to All Media	0 tonnes				
108-88-3	Toluene	Yes	Total Releases to Air	8.25 tonnes	8.518 tonnes	2015	-0.268	-3.15

### Comparison Report - On-site Releases - Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
67-64-1	Acetone	Decrease in production levels	
67-56-1	Methanol	Decrease in production levels Other	Material usage varies based on customer orders, and materials have varying concentrations of toxic substances.
108-88-3	Toluene	Decrease in production levels	
NA - M16	Volatile Organic Compounds (VOCs)	Decrease in production levels Other	Material usage varies based on customer orders, and materials have varying concentrations of toxic substances.

## Comparison Report - Transfers off-site for Recycling

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
67-64-1	Acetone	No	Total off-site Transfers for Recycling	0 tonnes	2.019 tonnes	2015	-2.019	-100
67-56-1	Methanol	No	Total off-site Transfers for Recycling	0.617 tonnes	0.770 tonnes	2015	-0.153	-19.87
108-88-3	Toluene	No	Total off-site Transfers for Recycling	3.152 tonnes	4.101 tonnes	2015	-0.949	-23.14

## Comparison Report - Transfers off-site for Recycling - Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
67-64-1	Acetone	Decrease in production levels	
67-56-1	Methanol	Decrease in production levels Other	Material usage varies based on customer orders, and materials have varying concentrations of toxic substances.
108-88-3	Toluene	Decrease in production levels	

## Pollution Prevention

Does the facility have a documented pollution prevention plan?

No

Did the facility complete any pollution prevention activities in the current NPRI reporting year

No

## Progress on TRA Plan - Objectives

CAS RN	Substance Name	Objectives
67-64-1	Acetone	The objective is to reduce the use of this substance through equipment modification and improved inventory management or purchasing techniques.
64-17-5	Ethanol	The objective is to reduce the use of this substance through equipment modification and improved inventory management or purchasing techniques.
141-78-6	Ethyl acetate	The objective is to reduce the use of this substance through equipment modification and improved inventory management or purchasing techniques.
67-63-0	Isopropyl alcohol	The objective is to reduce the use of this substance through equipment modification and improved inventory management or purchasing techniques.
67-56-1	Methanol	The objective is to reduce the use of methanol through technological and procedural means.
78-93-3	Methyl ethyl ketone	The objective is to reduce the use of this substance through equipment modification and improved inventory management or purchasing techniques.
123-86-4	n-Butyl acetate	The objective is to reduce the use of this substance through equipment modification and improved inventory management or purchasing techniques.
108-65-6	Propylene glycol methyl ether acetate	The objective is to reduce the use this substance through equipment or process modification and on-site reuse or recycling.
108-88-3	Toluene	The objective is to reduce the 2011 quantity used through technological and procedural means.

## Progress on TRA Plan - Use Targets

CAS RN	Substance Name	Quantity	Years	Description of Target
67-64-1	Acetone	No quantity target	No timeline target	
64-17-5	Ethanol	No quantity target	No timeline target	
141-78-6	Ethyl acetate	No quantity target	No timeline target	
67-63-0	Isopropyl alcohol	No quantity target	No timeline target	
67-56-1	Methanol	No quantity target	2	Install solvent saver line and gun cleaner, mix only the quantity of catalyzed materials needed.
78-93-3	Methyl ethyl ketone	No quantity target	No timeline target	
123-86-4	n-Butyl acetate	No quantity target	No timeline target	
108-65-6	Propylene glycol methyl ether acetate	No quantity target	No timeline target	
108-88-3	Toluene	No quantity target	2	Install solvent-saver line & gun cleaner device (261 kg), ensure recycled solvent is used for cleaning rather than virgin thinner (373 kg), and mix only the quantity of catalyzed materials needed (57 kg).

## Progress on TRA Plan - Creation Targets

CAS RN	Substance Name	Quantity	Years	Description of Target
67-64-1	Acetone	No quantity target	No timeline target	
64-17-5	Ethanol	No quantity target	No timeline target	
141-78-6	Ethyl acetate	No quantity target	No timeline target	
67-63-0	Isopropyl alcohol	No quantity target	No timeline target	
67-56-1	Methanol	No quantity target	No timeline target	
78-93-3	Methyl ethyl ketone	No quantity target	No timeline target	
123-86-4	n-Butyl acetate	No quantity target	No timeline target	
108-65-6	Propylene glycol methyl ether acetate	No quantity target	No timeline target	
108-88-3	Toluene	No quantity target	No timeline target	

## Progress on TRA Plan - Toxic Reduction Options Implemented

CAS RN	Substance Name	Activity	Steps that were taken in the reporting period to implement the toxic reduction option	Public summary of the description of the steps	Comparison of the steps that were described in the plan for implementation with the actual steps taken during the reporting period	Public summary of the comparison of the steps
67-64-1	Acetone	Other	A solvent saver was purchased and a trial was performed.	Equipment was purchased and a trial performed.	There were no steps in the plan for the reporting period. The steps taken were researching the solvent saver and performing a pilot test.	Equipment was purchased and a trial performed.
67-64-1	Acetone	Other	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.	The steps taken are the same as those described in the plan.	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.
64-17-5	Ethanol	Other	A solvent saver was purchased and a trial was performed.	Equipment was purchased and a trial performed.	There were no steps in the plan for the reporting period. The steps taken were researching the solvent saver and performing a pilot test.	Equipment was purchased and a trial performed.
64-17-5	Ethanol	Other	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.	The steps taken are the same as those described in the plan.	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.
64-17-5	Ethanol	Other	The pilot test in 2013 was unsuccessful as the pre-catalyzed materials negatively affected product quality. This is being re-evaluated, but trials still have not been successful.	The pilot test in 2013 was unsuccessful as the pre-catalyzed materials negatively affected product quality. This is being re-evaluated, but trials still have not been successful.	No steps were planned to be taken in 2016 as the option was planned to be implemented in 2014. However, re-evaluation of pre-catalyzed materials is ongoing.	The pilot test in 2013 was unsuccessful as the pre-catalyzed materials negatively affected product quality. This is being re-evaluated, but trials still have not been successful.
141-78-6	Ethyl acetate	Other	A solvent saver was purchased and a trial was performed.	Equipment was purchased and a trial performed.	There were no steps in the plan for the reporting period. The steps taken were researching the solvent saver and performing a pilot test.	Equipment was purchased and a trial performed.
141-78-6	Ethyl acetate	Other	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.	The steps taken are the same as those described in the plan.	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.
141-78-6	Ethyl acetate	Other	The pilot test in 2013 was unsuccessful as the pre-catalyzed materials negatively affected product quality. This is being re-evaluated, but trials still have not been successful.	The pilot test in 2013 was unsuccessful as the pre-catalyzed materials negatively affected product quality. This is being re-evaluated, but trials still have not been successful.	No steps were planned to be taken in 2016 as the option was planned to be implemented in 2014. However, re-evaluation of pre-catalyzed materials is ongoing.	The pilot test in 2013 was unsuccessful as the pre-catalyzed materials negatively affected product quality. This is being re-evaluated, but trials still have not been successful.
67-63-0	Isopropyl alcohol	Other	A solvent saver was purchased and a trial was performed.	Equipment was purchased and a trial performed.	There were no steps in the plan for the reporting period. The steps taken were researching the solvent saver and performing a pilot test.	Equipment was purchased and a trial performed.
67-56-1	Methanol	Modified stripping / cleaning devices	A solvent saver was purchased and a trial was performed.	Equipment was purchased and a trial performed.	There were no steps in the plan for the reporting period. The steps taken were researching the solvent saver and performing a pilot test.	Equipment was purchased and a trial performed.
67-56-1	Methanol	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	Already implemented as an internal procedure in 2012.	Already implemented as an internal procedure in 2012.	The steps taken are the same as those described in the plan.	Already implemented as an internal procedure in 2012.
					There were no steps in the	



CAS RN	Substance Name	Activity	Steps that were taken in the reporting period to implement the toxic reduction option	Public summary of the description of the steps	Comparison of the steps that were described in the plan for implementation with the actual steps taken during the reporting period	Public summary of the comparison of the steps
78-93-3	Methyl ethyl ketone	Other	A solvent saver was purchased and a trial was performed.	Equipment was purchased and a trial performed.	plan for the reporting period. The steps taken were researching the solvent saver and performing a pilot test.	Equipment was purchased and a trial performed.
123-86-4	n-Butyl acetate	Other	A solvent saver was purchased and a trial was performed.	Equipment was purchased and a trial performed.	There were no steps in the plan for the reporting period. The steps taken were researching the solvent saver and performing a pilot test.	Equipment was purchased and a trial performed.
123-86-4	n-Butyl acetate	Other	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.	The steps taken are the same as those described in the plan.	Mixing only the amount of materials needed was already implemented as an internal procedure in 2013.
123-86-4	n-Butyl acetate	Other	The pilot test in 2013 was unsuccessful as the pre-catalyzed materials negatively affected product quality. This is being re-evaluated, but trials still have not been successful.	The pilot test in 2013 was unsuccessful as the pre-catalyzed materials negatively affected product quality. This is being re-evaluated, but trials still have not been successful.	No steps were planned to be taken in 2016 as the option was planned to be implemented in 2014. However, re-evaluation of pre-catalyzed materials is ongoing.	The pilot test in 2013 was unsuccessful as the pre-catalyzed materials negatively affected product quality. This is being re-evaluated, but trials still have not been successful.
108-65-6	Propylene glycol methyl ether acetate	Changed to mechanical stripping / cleaning devices	A solvent saver was purchased and a trial was performed.	Equipment was purchased and a trial performed.	There were no steps in the plan for the reporting period. The steps taken were researching the solvent saver and performing a pilot test.	Equipment was purchased and a trial performed.
108-65-6	Propylene glycol methyl ether acetate	Other	This was already implemented in 2014.	This was already implemented in 2014.	The steps taken are the same as those described in the plan.	This was already implemented in 2014.
108-65-6	Propylene glycol methyl ether acetate	Other	No steps were taken as the plan was created in the reporting period.	No steps were taken as the plan was created in the reporting period.	The steps in the plan are the same as those taken.	No steps were taken as the plan was created in the reporting period.
108-88-3	Toluene	Modified stripping / cleaning devices	A solvent saver was purchased and a trial was performed.	Equipment was purchased and a trial performed.	There were no steps in the plan for the reporting period. The steps taken were researching the solvent saver and performing a pilot test.	Equipment was purchased and a trial performed.
108-88-3	Toluene	Other	Already implemented as an internal procedure in 2013.	Already implemented as an internal procedure in 2013.	The steps taken are the same as those described in the plan.	Already implemented as an internal procedure in 2013.
108-88-3	Toluene	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	Already implemented as an internal procedure in 2012.	Already implemented as an internal procedure in 2012.	The steps taken are the same as those described in the plan.	Already implemented as an internal procedure in 2012.

### Progress on TRA Plan - Reductions due to Options Implemented - Equipment or process modifications

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
67-64-1	Acetone	Other	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
67-64-1	Acetone	Other	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
67-64-1	Acetone	Other	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
67-64-1	Acetone	Other	The amount of reduction in <b>release to air</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
67-64-1	Acetone	Other	The amount of reduction in <b>release to water</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
67-64-1	Acetone	Other	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
67-64-1	Acetone	Other	The amount of reduction in the substance <b>disposed on-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
67-64-1	Acetone	Other	The amount of reduction in the substance <b>disposed off-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
67-64-1	Acetone	Other	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
64-17-5	Ethanol	Other	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount











Technique CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
108-88-3	Toluene	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in the substance <b>disposed on-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
108-88-3	Toluene	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in the substance <b>disposed off-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
108-88-3	Toluene	Instituted procedures to ensure that materials do not stay in inventory beyond shelf-life	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	0.018 tonnes

### Progress on TRA Plan - Reductions due to Options Implemented - On-site reuse, recycling or recovery

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
108-65-6	Propylene glycol methyl ether acetate	Other	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
108-65-6	Propylene glycol methyl ether acetate	Other	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
108-65-6	Propylene glycol methyl ether acetate	Other	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the steps described:	No Amount
108-65-6	Propylene glycol methyl ether acetate	Other	The amount of reduction in <b>release to air</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
108-65-6	Propylene glycol methyl ether acetate	Other	The amount of reduction in <b>release to water</b> of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
108-65-6	Propylene glycol methyl ether acetate	Other	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
108-65-6	Propylene glycol methyl ether acetate	Other	The amount of reduction in the substance <b>disposed on-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
108-65-6	Propylene glycol methyl ether acetate	Other	The amount of reduction in the substance <b>disposed off-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
108-65-6	Propylene glycol methyl ether acetate	Other	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the steps described:	No Amount

### Progress on TRA Plan - Additional Actions

CAS RN	Substance Name	Were there any additional actions outside the plan taken during the reporting period to reduce the use and/or creation of the substance?	Describe any additional actions that were taken during the reporting period to achieve the plan's objectives	Provide a public summary of the description of the additional action taken
67-64-1	Acetone	No		
64-17-5	Ethanol	No		
141-78-6	Ethyl acetate	No		
67-63-0	Isopropyl alcohol	No		
67-56-1	Methanol	No		
78-93-3	Methyl ethyl ketone	No		
123-86-4	n-Butyl acetate	No		
108-65-6	Propylene glycol methyl ether acetate	No		
108-88-3	Toluene	No		

### Progress on TRA Plan - Reductions due to additional actions taken

CAS RN	Substance Name	Reductions due to additional actions taken	Quantity
67-64-1	Acetone	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the additional actions.	
67-64-1	Acetone	The amount of reduction in <b>creation</b> of the substance at the facility during the reporting period that resulted due to the additional actions.	
67-64-1	Acetone	The amount of reduction in the substance <b>contained in product</b> at the facility during the reporting period that resulted due to the additional actions.	
67-64-1	Acetone	The amount of reduction in <b>release to air</b> of the substance at the facility during the reporting period that resulted due to the additional actions.	
67-64-1	Acetone	The amount of reduction in <b>release to water</b> of the substance at the facility during the reporting period that resulted due to the additional actions.	
67-64-1	Acetone	The amount of reduction in <b>release to land</b> of the substance at the facility during the reporting period that resulted due to additional actions.	
67-64-1	Acetone	The amount of reduction in the substance <b>disposed on-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
67-64-1	Acetone	The amount of reduction in the substance <b>disposed off-site</b> (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
67-64-1	Acetone	The amount of reduction in the substance <b>recycled off-site</b> at the facility during the reporting period that resulted due to the additional actions.	
64-17-5	Ethanol	The amount of reduction in <b>use</b> of the substance at the facility during the reporting period that resulted due to the additional actions.	







CAS RN	Substance Name	Were any amendments made to the toxic substance reduction plan during the reporting period	Description of any amendments that were made to the toxic substance reduction plan during the reporting period	Provide a public summary of the description of any amendments that were made to the toxic substance reduction plan during the reporting period
64-17-5	Ethanol	No		
141-78-6	Ethyl acetate	No		
67-63-0	Isopropyl alcohol	No		
67-56-1	Methanol	No		
78-93-3	Methyl ethyl ketone	No		
123-86-4	n-Butyl acetate	No		
108-65-6	Propylene glycol methyl ether acetate	No		
108-88-3	Toluene	No		

## Report Submission and Electronic Certification

### NPRI - Electronic Statement of Certification

Specify the language of correspondence

English

Comments (optional)

I hereby certify that I have exercised due diligence to ensure that the submitted information is true and complete. The amounts and values for the facility(ies) identified below are accurate, based on reasonable estimates using available data. The data for the facility(ies) that I represent are hereby submitted to the programs identified below using the Single Window Reporting Application.

I also acknowledge that the data will be made public.

Note: Only the person identified as the Certifying Official or the authorized delegate should submit the report(s) identified below.

Company Name

Krug Furniture Inc.

Certifying Official (or authorized delegate)

Leslie Creek

Report Submitted by

Rob Hawes

I, the Certifying Official or authorized delegate, agree with the statements above and acknowledge that by pressing the "Submit Report(s)" button, I am electronically certifying and submitting the facility report(s) for the identified company to its affiliated programs.

### ON MOE TRA - Electronic Certification Statement

#### Annual Report Certification Statement

As of 31/05/2017, I, Rob Hawes, certify that I have read the reports on the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the information contained in the reports is factually accurate and the reports comply with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

#### TRA Substance List

CAS RN

Substance Name

67-64-1

Acetone

67-56-1

Methanol

108-88-3

Toluene

#### Exit Record Certification Statement

As of 31/05/2017, I Rob Hawes, certify that I have read the records created for the purposes of section 11.2 of Ontario Regulation 455/09 (General) made under the Toxics Reductions Act, (2009) in respect of the use and creation of the toxic substances referred to below at MANITOU CASEGOODS and am familiar with their contents and to my knowledge they are factually accurate.

#### TRA Exit Record Substances

CAS RN

Substance Name

64742-89-8

Solvent naphtha light aliphatic

Company Name

Krug Furniture Inc.

Highest Ranking Employee

Rob Hawes

Report Submitted by

Rob Hawes

Website address

I, the highest ranking employee, agree with the certification statement(s) above and acknowledge that by checking the box I am electronically signing the statement(s). I also acknowledge that by pressing the 'Submit Report(s)' button I am submitting the facility record(s)/report(s) for the identified facility to the Director under the Toxics Reduction Act, 2009. I also acknowledge that the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 provide the authority to the Director under the Act to make certain information as specified in subsection 27(5) of Ontario Regulation 455/09 available to the public.

## Submitted Report

Period	Submission Date	Facility Name	Province	City	Programs
2016	31/05/2017	MANITOU CASEGOODS	Ontario	Kitchener	NPRI,ON MOE TRA,ON MOE

Note: If there is a change in the contact information for the facility, a change in the owner or operator of the facility, if operations at the facility are terminated, or if information submitted for any previous year was mistaken or inaccurate, please update this information through SWIM or by contacting the National Pollutant Release Inventory directly.

Version: 3.11.4



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